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REVISED SPECIFICATION

MANUFACTURE OF A MULTI-LAYER MATERIAL AND MATERIAL THUS OBTAINED

BACKGROUND

Field Of The Invention

The present invention refers to manufacture of a multi-layer material and to the material thus obtained.

Relevant Art

The multi-layer materials are useful in many different fields and particularly in the packaging industry. One such material is corrugated cardboard. Typically, the corrugated cardboard is produced by covering a sheet, which is first corrugated by passage between two fluted cylinders, with two cover sheets which are adhered to the tops of the central sheet corrugations.

In the packaging industry, the corrugated cardboard finds its main use as particularly effective protective material, and has the added benefit that is relatively easy to recycle.

Relatively thin corrugated cardboard is also used as an attractive packaging material for a special range of products. It is necessary, in this case, to print this corrugated cardboard. This printing process is possible thanks to the progress reached with flexographic printing techniques which allow high quality printing in several colors.

A known problem with printing of a corrugated cardboard is that the printing will show lines corresponding to each corrugation top since, in the printing process, the corrugated cardboard will be slightly crushed. The different resistance between the top of the corrugations and the segment between two consecutive tops is the main reason these lines appear.

The manufacture of a corrugated cardboard is carried out by means of a complex machine such as a corrugating device which includes a paper feeding station, made of reels, for a corrugating station, a paper feeding station, made of reels, for a first cover sheet, a paper feeding station, made of reels, for a possible second cover sheet, a gluing device for the glue deposit on the top of the corrugations, a pressing station for the gluing of the second cover sheet on the tops of the corrugated sheet, devices for longitudinal and transverse cutting of the corrugated sheet and a delivery station for cardboard sheets cut at the requested format.